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10/500,707	09/24/2004	Wolfgang Siegel	076326-0283	2461

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FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
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FREEDMAN, LAURA BETH

ART UNIT	PAPER NUMBER
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3616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/500,707	Applicant(s) SIEGEL ET AL.	
	Examiner Laura B. Freedman	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 41-82 is/are pending in the application.
- 4a) Of the above claim(s) 43, 46 and 64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41, 42, 44, 45, 47-63 and 65-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/2/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Species 4, figures 6 and 7, in the reply filed on 06 December 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 43, 46, and 64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Examiner apologizes for mistakenly listing claim 43 as reading on Species 4 in the office action mailed 06 November 2006. However, claim 43 only reads on Species 5 and Species 6.

### ***Specification***

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because the term "said" has been used. Correction is required. See MPEP § 608.01(b).

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5. The specification is objected to because no headings are present.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### *Claim Objections*

6. Claims 55, 58, 63, 67, and 82 are objected to because of the following informalities:

"a tubular gas generator" should be changed to --*the* tubular gas generator--

(claim 55, line 2);

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one "a" should be deleted (claim 58, end of line 1);

"outlet opening" should be changed to --outlet openings-- (claim 63, line 1);

"the inner wall" should be changed to --an inner wall-- (claim 67, line 1);

"a gas bag" should be changed to --the gas bag-- (claim 82, line 1).

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 47-51, 67, and 76-78 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claims 47-51, 67, 76, 78, use of the phrase "and/or" makes the claims unclear.

In regards to claim 67, examiner is unsure what "rejoin" means, and clarification is necessary.

In addition, claim 48 recites the limitation "the outlet openings of the holder" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 41, 42, 44, 45, 47, 48, 52-75, 78, 79, 81, and 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Acker et al. (5,536,041). Acker et al. disclose a gas flow distributor (including diffuser #18) able to be used with a lateral airbag module (for example, including #10B, 10C), comprising:

- Holder (including #18) able to surround outflow openings (including #17) of a gas generator (including #16)
- The holder includes an impact element (for example, including central section #21) and a gas-guiding duct (for example, including cavity #25; best seen in figure 3)
- The gas-guiding duct is able to guide gas flowing between the impact element and the gas generator (column 3, lines 38-55; column 4, lines 3-9)
- The impact element is configured so that a gas flow emerging from the outflow openings of the gas generator impacts against the impact element and is thereby deflected and divided into a first gas flow and a second gas flow (for example, gas flows toward terminal end sections #22, 23)
- The first gas flow is deflected in a first direction (for example, toward end section #22) along a circumferential surface of the gas flow distributor toward a first gas outlet region (for example, including open portion of #22)
- The second gas flow is deflected in a second direction (for example, toward end section #23) along the circumferential surface of the gas flow distributor toward a second gas outlet region (for example, including open portion of #23)

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- The first and second gas flows emerge from the gas outlet regions along a tube axis (for example, to the left and right in figure 2) of the gas generator
- The first and second gas outlet regions are opposite one another (for example, to the left and right in figure 2)
- The gas-guiding duct runs essentially between an outside of the gas generator and an inside of the impact element (best seen in figure 3)
- The impact element has an essentially circular cross section (best seen in figure 3)
- The gas generator comprises a tubular gas generator (including #16; can be seen in figures 2, 5) and the tube axis of the gas generator and a cross-sectional axis of the impact element are spaced apart from each other (best seen in figure 3)
- The gas-guiding duct essentially has a crescent-shaped cross section (best seen in figure 3)
- The gas outlet regions of the gas-guiding duct and/or outlet openings (including openings #24 in central portion #21, and open portions of #22, 23) of the holder lead into at least one gas bag (including #14)
- The holder comprises a dimensionally stable material (for example, metal, based on cross-sectional figure 3) so that the holder is not deformed by the gas flow emerging from the gas generator
- The holder is able to hold a tubular gas generator (including #16; best seen in figures 2, 3, 5)
- The holder includes a holding region (for example, including central section #21) able to surround the tubular gas generator (can be seen in figures 2, 3, 5)

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- The holding region comprises a tubular shape (can be seen in figures 2-5)
- A cross section of the holding region comprises a continuous curve (can be seen in figure 3)
- The continuous curve comprises a circular shape or a polygonal shape (can be seen in figure 3)
- The holding region comprises an essentially hollow, cylindrical shape (can be seen in figure 3)
- The holder is able to allow gas flowing along a circumferential surface of the holding region in a direction of extent of the tubular gas generator into a gas bag (for example, via openings #24 in central portion #21, and open portions of #22, 23)
- The holder includes holder outlet openings (for example, including openings #24, and open portions of terminal sections #22, 23) through which gas which has flowed into an interior of the holder can emerge from the gas generator and can flow into a gas bag (including #14) to thereby inflate the gas bag
- At least one holder outlet opening (for example, openings #24) is provided in a casing of the holding region (can be seen in figure 4)
- A size of the holder outlet opening can be set (for example, size can be set upon design of holder)
- At least one holder outlet opening (for example, all holder outlet openings) is able to conduct the gas flow emerging from the gas generator along a circumferential surface of the holding region in a direction of extent of the gas generator (based on location of generator outflow openings #17 with respect to holder outlet openings)



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- The holder is configured so that the gas flow emerging from the gas generator is held in the holding region (for example, held in cavity #25) and is at least in part initially reflected against an inner wall (for example, including internal peripheral surface #18') of the holding region before the gas flow emerges from the holder
- The inner wall of the holding region is spaced apart from the gas generator at least in a 'rejoin' of the gas generator outflow openings (can be seen in figures 2, 3)
- The holder is able to be connected directly to a supporting part of a motor vehicle (for example, able to be connected directly to door or roof component of vehicle)
- The holder is able to be connected to a supporting part of a motor vehicle indirectly via a further assembly (for example, via casing #19 assembly)
- The further assembly comprises a subassembly of an airbag module (for example, subassembly includes components shown in figure 5)
- The gas flow distributor is able to serve as a generator support and includes a connecting region (including screw connection means #26-29 and casing #19) able to connect the generator support to a supporting part of a motor vehicle (for example, able to connect to door or roof component of vehicle)
- The connecting region includes fastening points (not labeled, but fastening points can be seen in figures 2, 5 receiving screws #26A-29A) able to fasten the generator support to a further subassembly (for example, including casing #19 subassembly)
- The connecting region includes a flange (for example, including base of #18 that receives screws and does not include outlet openings)

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- The flange protrudes from a holding region (for example, including portion of #21 that encircles generator #16) of the generator support (can be seen in figures 2-5)
- The holding region and the connecting region of the generator support comprise a single-piece design (can be seen in figures 2-5)
- A function of the impact element and/or of the holder is maintained during plastic deformation (for example, impact element/holder continues to distribute gas along certain flow paths even has hot gas contacts the inner periphery surface)
- The gas flow distributor is included in a lateral airbag module (for example, including #10B, 10C)
- A holding region of the gas flow distributor is arranged within the gas bag (all of gas flow distributor is arranged within the gas bag; can be seen in figures 2, 3, 5)

11. Claims 41, 42, 44, 47-63, 65-74, and 76-82 are rejected under 35 U.S.C. 102(b) as being anticipated by Saita et al. (6,293,581). Saita et al. disclose a gas flow distributor (for example, including #42-44, as seen in figures 3, 4, 7) able to be used with a lateral airbag module (for example, roof-rail mounted airbag module #C), comprising:

- Holder (including #42-44) able to surround outflow openings (including #41<sub>1</sub>) of a gas generator (including #41)
- The holder includes an impact element (including interior surfaces of #42-44) and a gas-guiding duct (including region between #41 and interior surfaces of #42-44, as shown with arrows in figure 7)

- The gas-guiding duct is able to guide gas flowing between the impact element and the gas generator (can be seen in figure 7)
- The impact element is configured so that a gas flow emerging from the outflow openings of the gas generator impacts against the impact element and is thereby deflected and divided into a first gas flow and a second gas flow (for example, to the left and right in figure 7)
- The first gas flow is deflected in a first direction (for example, to the left in figure 7) along a circumferential surface of the gas flow distributor toward a first gas outlet region (for example, including region defined by #43)
- The second gas flow is deflected in a second direction (for example, to the right in figure 7) along the circumferential surface of the gas flow distributor toward a second gas outlet region (for example, including region defined by #44)
- The first and second gas flows emerge from the gas outlet regions along a tube axis (for example, to the left and right in figure 7) of the gas generator
- The first and second gas outlet regions are opposite one another (can be seen in figure 7)
- The gas-guiding duct runs essentially between an outside of the gas generator and an inside of the impact element (can be seen in figure 7)
- The impact element has an essentially circular cross section (can be seen in figure 4)
- The gas-guiding duct essentially has a circular ring-shaped cross section (can be seen between #41 and #42 in figure 4)

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- The gas outlet regions of the gas-guiding duct and/or outlet openings (including regions defined by #43, 44 and ejection ports #59, 60) of the holder lead into at least one gas bag (including #21)
- The gas outlet regions of the gas-guiding duct and/or the outlet openings of the holder lead in each case into different chambers of the gas bag and/or into different gas bags (can be seen in figure 3)
- The impact element and/or the holder serve to separate two gas bag chambers (for example, including first and second cell groups #36, 37)
- At least two gas bags (for example, first and second cell groups #36, 37) are attached to the impact element and/or holder (for example, via gas supply ports #31, 35) and in each case at least one gas-guiding duct and/or at least one outlet opening lead into one gas bag (for example, gas ejection ports #59, 60 lead into separate gas bags defined by cell groups #36, 37)
- The holder comprises a dimensionally stable material (for example, metal, based on cross-sectional figure 4) so that the holder is not deformed by the gas flow emerging from the gas generator
- The holder is able to hold a tubular gas generator (including #41)
- The holder includes a holding region (for example, including case #42) able to surround the tubular gas generator (can be seen in figures 4, 7)
- The holding region comprises a tubular shape (can be seen in figure 7)
- A cross section of the holding region comprises a continuous curve (can be seen in figure 4)

- The continuous curve comprises a circular shape or a polygonal shape (can be seen in figure 4)
- The holding region comprises an essentially hollow, cylindrical shape (can be seen in figure 4)
- The holder is able to allow gas flowing along a circumferential surface of the holding region in a direction of extent of the tubular gas generator into a gas bag (can be seen with arrows in figure 7)
- The holder includes holder outlet openings (for example, including gas ejection ports #59, 60) through which gas which has flowed into an interior of the holder can emerge from the gas generator and can flow into a gas bag (including #21) to thereby inflate the gas bag
- At least one holder outlet opening (including #59, 60) is provided in a casing (for example, including diffusers #43, 44) of the holding region
- A size of the holder outlet opening can be set (for example, size can be set upon design of holder)
- At least one holder outlet opening (including #59, 60) is able to conduct the gas flow emerging from the gas generator along a circumferential surface of the holding region in a direction of extent of the gas generator (can be seen in figure 7)
- The holder is configured so that the gas flow emerging from the gas generator is held in the holding region and is at least in part initially reflected against an inner wall of the holding region before the gas flow emerges from the holder (can be seen in figure 7)

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- The inner wall of the holding region is spaced apart from the gas generator at least in a 'rejoin' of the gas generator outflow openings (can be seen in figure 7)
- The holder is able to be connected directly to a supporting part of a motor vehicle (for example, able to be connected directly to roof component of vehicle)
- The holder is able to be connected to a supporting part of a motor vehicle indirectly via a further assembly (for example, via mounting bracket #56 assembly)
- The further assembly comprises a subassembly of an airbag module (for example, subassembly includes airbag module components shown in figure 4)
- The gas flow distributor is able to serve as a generator support and includes a connecting region (for example, including middle portion of #42 and mounting components #56, 57) able to connect the generator support to a supporting part of a motor vehicle (for example, roof component of vehicle)
- The connecting region includes fastening points (for example, including #56<sub>1</sub>, 57) able to fasten the generator support to a further subassembly (for example, including various subassemblies seen in figure 4)
- The connecting region includes a flange (including #56<sub>1</sub>)
- The flange protrudes from a holding region (for example, including #42) of the generator support (can be seen in figures 4, 7)
- A separating gap (for example, including non-expandable portion #21<sub>2</sub>, or gap between #31 and #35 as seen in figure 7) running between two gas bags (including cell groups #36, 37) runs in a region of the impact element and/or the holder (can be seen in figures 3, 7)

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- The separating gap is able to be braced in a gastight manner via the impact element (for example, via bands #45, 46)
- A function of the impact element and/or of the holder is maintained during plastic deformation (for example, impact element/holder continues to distribute gas along certain flow paths even has hot gas contacts the inner periphery surface)
- The gas flow distributor is included in a lateral airbag module (for example, including roof-rail mounted airbag module #C)
- The first and second gas outlet regions are the sole gas outlet regions (can be seen in figure 7)
- A holding region of the gas flow distributor is arranged within the gas bag (for example, including left and right regions of gas flow distributor, as can be seen arranged within the gas bag in figure 7)

The examiner notes that while only one embodiment has been used in this prior art rejection, other embodiments of this reference (for example, the embodiments of figure 17, 20) may also read on applicant's claimed invention.

### ***Conclusion***


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Strasser, Sinnhuber et al., Lang, Takagi et al., Morfouace et al., and Smith disclose a gas flow distributor comprising a holder including an impact element and a gas-guiding duct, wherein first and second gas flows emerge in opposite directions from gas outlet regions along a tubular axis of a gas generator.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Freedman whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Laura B Freedman  
Patent Examiner  
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LBF

  
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